IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Q. S. DEHGHAN; Art Unit: 1791; Docket No.: 2701

In RE:	**Application of Reiner BARTSCH**
Ser. No.:	**10/625,582**
Filing Date:	**July 23, 2003**
Title:	**METHOD FOR PREVENTING CONTAMINATION OF AN INNER SURFACE OF A HOLLOW GLASS BODY BY ALKALI COMPOUINDS AND GLASS CONTAINER, ESPECIALLY FOR MEDICINAL PURPOSES**

January 8, 2009

AMENDED 'SUMMARY OF CLAIMED SUBJECT MATTER' SECTION FOR AN APPEAL BRIEF IN RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Hon. Commissioner of Patents
and Trademarks,
Washington, D.C. 20231

Sir:

In response to the 'Notification of Non-Compliant Appeal Brief' dated November 14, 2008, please accept the following amended 'Summary of the Claimed Subject Matter' section of the appeal brief filed on October 24, 2008 in the above-identified U.S. Patent Application:

AMENDMENTS to the 'Summary of the Claimed Subject Matter' Section:

Please replace the 'Summary of the Claimed Subject Matter' section of the appeal brief filed on October 24, 2008 with the following new or replacement section:

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The page and line numbers in the following summary of the claimed subject matter refer to the location of that subject matter in the appellant's specification.

A. INDEPENDENT METHOD CLAIM 32

Step a) of claim 32, which claims a method of making a small glass container, includes the following wording: "clamping a hollow glass tube with an open upper end and an inner surface in a vertical orientation". Figure 2 of appellant's specification, which partially illustrates the embodiment of the method claimed in claim 32, shows a glass tube 2 with an open upper end (partially closed by the stopper), clamped in a vertical position and thus supports the limitations of step a) of claim 32. Some additional support for these features of step a) of claim 32 is found in the appellant's specification at page 8, lines 6 to 7.

The limitation in step a) of claim 32 that the claimed method is limited to hollow glass tubes having an alkali release during thermal processing is supported by page 2, lines 9 to 11, of the appellant's specification. Some further supporting disclosure is found in the first, fourth, and last paragraphs on page 4 of the

appellant's specification, which state that the alkali release from the hollow glass body from which the glass container is made is reduced by the presence of an overpressure in the hollow glass body during thermal processing. Furthermore it would be apparent to one of ordinary skill in the glass arts that a method to reduce the alkali release from the inner surfaces of the hollow glass body should be limited to glass bodies that contain alkali compounds.

The limitations of step a) of claim 32 correspond to a preferred embodiment of a more general method for making the glass container described on page 5, lines 2 to 10, of the appellant's specification, which are quoted herein below:

> "a method comprising the steps of:
> a) thermally cutting a glass tube to length;
> b) thermally opening a bottom formed on the glass tube during the cutting to length; and
> c) providing an overpressure in an interior of the glass tube.
>
> In order to attain the desired effect the overpressure must be provided during the thermal processing, since the alkali compounds evaporate during the thermal processing or at the time of the thermal processing." [Underlining for emphasis has been added to the quotation]

The above quoted method steps a) and b) recited on page 5 of the appellant's specification correspond to and support method steps b) and c) of appellant's method claim 32, which state that the glass tube (clamped in the vertical orientation of step a)) is thermally cut to length and that the bottom of the glass tube is thermally opened (by heating) during the claimed method of claim 32.

Furthermore the appellant's specification provides a definition of "thermal processing" at page 2, lines 20 to 23, that supports the limitation in the last several lines of step d) of claim 32 that the "thermal processing" includes both the

"thermally cutting to length" of step b) of claim 32 and the "thermally opening" of step c) of claim 32. The specification on page 2 defines "thermally processing" as "after-working" (which of course must involve heating since the after-working is thermal) in order to process the "intermediate product", i.e. the hollow glass body or more particularly the glass tube, to make the "end product", i.e. the glass container. Since thermally "cutting to length" and "thermally opening" of the glass tube occur after the hollow glass body or the glass tube ("intermediate product") is made, this definition supports the wording in the claims that states that "thermal processing" includes "thermally cutting to length" and "thermally opening the bottom".

Thus the claimed method of claim 32 is properly limited to providing the overpressure while the thermally cutting and thermally opening of steps b) and c) of claim 32 are performed. The aforesaid reasons based on citations of portions of the appellant's specification and the figures show that this latter limitation is supported by the originally filed disclosure.

The step b) of method claim 32 includes the further limitation that the result of thermally cutting the hollow glass tube to length produces a tube piece for discard and a bottom of the hollow glass tube clamped in the vertical orientation in step a). This further limitation corresponds to a further preferred embodiment of the method generally described on page 5 of appellant's specification and quoted herein above. It is supported by the disclosure on page 8, lines 8 to 10, which explains that two bottoms are formed by the "cutting through", namely an upper bottom on the clamped piece of the glass tube and a lower bottom (piece) which is to be discarded.

Step d) of claim 32 claims a preferred embodiment for producing the overpressure during thermal processing in the quoted method from page 5 of the appellant's specification. The critical overpressure in the glass tube during thermal processing is provided by a stopper with a through-going hole that partially closes the upper end of the glass tube in the case of the embodiments according to step d) of claim 32. Fig. 2 and the description associated with fig. 2 support this embodiment. The last two paragraphs on page 6 and the first paragraph on page 9 of the appellant's specification support the use of the stopper with the through-going hole to provide the overpressure. Page 9, lines 1 to 13, of the appellant's specification also support the feature that the size of the hole in the stopper is selected so that the overpressure is not too high and damage to the softened glass tube is prevented, but is still sufficient to reduce alkali contamination.

Especially note the last paragraph on page 4 and the paragraph between page 9, line 14, and page 10, line 2 of appellant's specification with evidence supporting the last paragraph of claim 32, which states that the contamination of the inner surface by alkali is at least reduced by the claimed method of claim 32.

B. INDEPENDENT METHOD CLAIM 36

The method of making a small glass container covered by independent method claim 36 differs from the method covered by the above-described independent method claim 32 only in that the overpressure provided by the steps d) of the respective claimed methods is provided in a different manner.

Step a) of claim 36, which claims a method of making a small glass container, includes the following wording: "clamping a hollow glass tube with an open upper end and an inner surface in a vertical orientation". Figure 1 of appellant's specification, which partially illustrates the embodiment of the method claimed in claim 36, shows a glass tube 2 with an open upper end clamped in a vertical position and thus supports the limitations of step a) of claim 36. Some additional support for these features of step a) of claim 36 is found in the appellant's specification at page 8, especially lines 6 to 7.

The limitation in step a) of claim 36 that the claimed method is limited to hollow glass tubes having an alkali release during thermal processing is supported by page 2, lines 9 to 11, of the appellant's specification. Some more indirect support is also provided by the first, fourth, and last paragraphs on page 4 of the appellant's specification, which state that the alkali release from the hollow glass body, from which the glass container is made, is reduced by the presence of an overpressure in the hollow glass body during thermal processing. Furthermore it would be apparent to one of ordinary skill in the glass arts that a method to reduce the alkali release from the inner surfaces of the hollow glass body should be limited to glass bodies that contain alkali compounds.

The limitations of step a) of claim 36 are part of a preferred embodiment of a more general method for making the glass container, which is described on page 5, lines 2 to 10, of the appellant's specification, which are quoted herein below:

> "a method comprising the steps of:
> a) thermally cutting a glass tube to length;

b) thermally opening a bottom formed on the glass tube during the cutting to length; and

c) providing an overpressure in an interior of the glass tube.

In order to attain the desired effect the overpressure must be provided during the thermal processing, since the alkali compounds evaporate during the thermal processing or at the time of the thermal processing." [Underlining for emphasis has been added to the quotation]

The above quoted method steps a) and b) recited on page 5 of the appellant's specification correspond to and support method steps b) and c) of appellant's method claim 36, which state that the glass tube (clamped in the vertical orientation of step a)) is thermally cut to length and that the bottom of the glass tube is thermally opened (by heating) during the claimed method of claim 36.

Furthermore the appellant's specification provides a definition of "thermal processing" at page 2, lines 20 to 23, that supports the limitation in the last several lines of step d) of claim 36 that the "thermal processing" includes both the "thermally cutting to length" of step b) of claim 36 and the "thermally opening" of step c) of claim 36. The specification on page 2 defines "thermally processing" as "after-working" (which of course must involve heating since the after-working is thermal) in order to process the "intermediate product", i.e. the hollow glass body or more particularly the glass tube, to make the "end product", i.e. the glass container. Since thermally "cutting to length" and "thermally opening" of the glass tube occur after the hollow glass body or the glass tube ("intermediate product") is made, this definition supports the wording in the claims that states that "thermal processing" includes "thermally cutting to length" and "thermally opening the bottom".

Thus the claimed method of claim 36 is properly limited to providing the overpressure while the thermally cutting and thermally opening of steps b) and c) of claim 36 are performed. The aforesaid reasons based on citations of portions of the appellant's specification and the figures show that this latter limitation is supported by the originally filed disclosure.

The step b) of method claim 36 includes the further limitation that the result of thermally cutting the hollow glass tube to length produces a tube piece for discard and a bottom of the hollow glass tube clamped in the vertical orientation in step a). This further limitation corresponds to a further preferred embodiment of the method generally described on page 5 of appellant's specification and quoted herein above. It is supported by the disclosure on page 8, lines 8 to 10, which explains that two bottoms are formed by the "cutting through", namely an upper bottom on the clamped piece of the glass tube and a lower bottom (piece) which is to be discarded.

Step d) of claim 36 claims a preferred embodiment for producing the overpressure during thermal processing in the quoted method from page 5 of the appellant's specification. The critical overpressure in the glass tube during thermal processing is provided by blowing gas during thermal processing into the hollow glass tube through its open upper end in the case of the alternative embodiments according to step d) of claim 36. Fig. 1 and the description on page 8 of appellant's specification associated with it support this embodiment. The last paragraph on page 5 of the appellant's US specification supports providing the overpressure by blowing a gas into the open upper end of the hollow glass tube (which is the end

opposite to the end at which thermal processing takes place in the embodiment shown in appellant's fig. 1) during thermal processing. Page 8, line 16 to last line, and the embodiment of fig. 1, also support the limitation that the gas flow is conducted into the glass tube through its open upper end.

Especially note the last paragraph on page 4 and the paragraph between page 9, line 14, and page 10, line 2 of appellant's specification that support the last paragraph of claim 36, which states that the contamination of the inner surface by alkali is at least reduced by the claimed method of claim 36.

C. INDEPENDENT METHOD CLAIM 40

Independent claim 40 covers a method of reducing contamination of an inner surface of a hollow glass tube due to alkali release during thermal processing of the hollow glass tube instead of during a method of making a glass container by thermal processing as in claims 32 and 36. The preamble and steps of claim 40 are supported by the first two paragraphs on page 4 of the appellant's specification. Also see the statements in the last paragraph on page 8 of the appellant's specification regarding prevention of contamination with alkali borates.

Step a) of claim 40 includes the following wording: "clamping a hollow glass tube with an open upper end and an inner surface in a vertical orientation". Figure 2 of appellant's specification, which partially illustrates the embodiment of the method claimed in claim 40, shows a glass tube 2 with an open upper end (partially closed by the stopper), clamped in a vertical position and thus supports the

limitations of step a) of claim 40. Some additional support for these features of step a) of claim 40 is found in the appellant's specification at page 8, lines 6 to 7.

The limitation in step a) of claim 40 that the claimed method is limited to hollow glass tubes having an alkali release during thermal processing is supported by page 2, lines 9 to 11, of the appellant's specification. Furthermore it would be apparent to one of ordinary skill in the glass arts that a method to reduce the alkali release from the inner surfaces of the hollow glass body should be limited to glass bodies that contain alkali compounds.

Step b) of claim 40 claims a preferred embodiment for producing the overpressure during thermal processing in the quoted method from page 5 of the appellant's specification. The critical overpressure in the glass tube during thermal processing, which according to the second paragraph on page 4 of the appellant's specification is responsible for reducing or avoiding the contamination by alkali release, is provided by a stopper with a through-going hole that partially closes the upper end of the glass tube in the case of the embodiments according to step b) of claim 40. Fig. 2 and the description associated with fig. 2 support this embodiment. The last two paragraphs on page 6 and the first paragraph on page 9 of the appellant's specification support the use of the stopper with the through-going hole to provide the overpressure. Page 9, lines 1 to 13, of the appellant's specification also support the feature that the size of the hole in the stopper is selected so that the overpressure is not too high and damage to the softened glass tube is prevented, but is still sufficient to reduce alkali contamination.

Furthermore the appellant's specification provides a definition of "thermal processing" at page 2, lines 20 to 23, that supports the limitation in the last several lines of step b) of claim 40 that the "thermal processing" includes both the "thermally cutting to length" and the "thermally opening". The specification on page 2 defines "thermally processing" as "after-working" (which of course must involve heating since the after-working is thermal) in order to process the "intermediate product", i.e. the hollow glass body or more particularly the glass tube, to make the "end product", i.e. the glass bottle. Since thermally "cutting to length" and "thermally opening" of the glass tube occur after the hollow glass body or the glass tube ("intermediate product") is made, this definition supports the wording in the claims that states that "thermal processing" includes "thermally cutting to length" and "thermally opening the bottom".

Thus the claimed method of claim 40 is properly limited to providing the overpressure while the thermal processing including the thermally cutting to length and the thermally opening is performed. The aforesaid reasons based on citations of portions of the appellant's specification and the figures show that this latter limitation is supported by the originally filed disclosure.

Especially note the last paragraph on page 4 and the paragraph between page 9, line 14, and page 10, line 2 of appellant's specification that support the last paragraph of claim 40, which states that the contamination of the inner surface by alkali during thermal processing is at least reduced by the claimed method of claim 40.

D. INDEPENDENT METHOD CLAIM 42

Independent claim 42 covers a method of reducing contamination of an inner surface of a hollow glass tube due to alkali release during thermal processing of the hollow glass tube instead of during a method of making a glass container by thermal processing as in claims 32 and 36. The preamble and steps of claim 42 are supported by the first two paragraphs on page 4 of the appellant's specification. Also see the statements in the last paragraph on page 8 of the appellant's specification regarding prevention of contamination with alkali borates.

Step a) of claim 42, which claims a method of making a small glass container, includes the following wording: "clamping a hollow glass tube with an open upper end and an inner surface in a vertical orientation". Figure 1 of appellant's specification, which partially illustrates the embodiment of the method claimed in claim 42, shows a glass tube 2 with an open upper end clamped in a vertical position and thus supports the limitations of step a) of claim 42. Some additional support for these features of step a) of claim 42 is found in the appellant's specification at page 8, especially lines 6 to 7.

The limitation in step a) of claim 42 that the claimed method is limited to hollow glass tubes having an alkali release during thermal processing is supported by page 2, lines 9 to 11, of the appellant's specification. Some more indirect support is also provided by the first, fourth, and last paragraphs on page 4 of the appellant's specification, which state that the alkali release from the hollow glass body, from which the glass container is made, is reduced by the presence of an

overpressure in the hollow glass body during thermal processing. Furthermore it would be apparent to one of ordinary skill in the glass arts that a method to reduce the alkali release from the inner surfaces of the hollow glass body should be limited to glass bodies that contain alkali compounds.

The limitations of step a) of claim 42 are part of one embodiment of a method for reducing alkali contamination of a glass tube during the making of a glass container described on page 5, lines 2 to 10, of the appellant's specification:

> "a method comprising the steps of:
> a) thermally cutting a glass tube to length;
> b) thermally opening a bottom formed on the glass tube during the cutting to length; and
> c) providing an overpressure in an interior of the glass tube.
>
> In order to attain the desired effect the overpressure must be provided during the thermal processing, since the alkali compounds evaporate during the thermal processing or at the time of the thermal processing." [Underlining for emphasis has been added to the quotation]

The above quoted method steps a) and b) recited on page 5 of the appellant's specification correspond to and support method steps b) and c) of appellant's method claim 42, which state that the glass tube (clamped in the vertical orientation of step a)) is thermally cut to length and that the bottom of the glass tube is thermally opened (by heating) during the claimed method of claim 42.

Furthermore the appellant's specification provides a definition of "thermal processing" at page 2, lines 20 to 23, that supports the limitation in the last several lines of step d) of claim 42 that the "thermal processing" includes both the "thermally cutting to length" of step b) of claim 42 and the "thermally opening" of step c) of claim 42. The specification on page 2 defines "thermally processing" as

"after-working" (which of course must involve heating since the after-working is thermal) in order to process the "intermediate product", i.e. the hollow glass body or more particularly the glass tube, to make the "end product", i.e. the glass bottle. Since thermally "cutting to length" and "thermally opening" of the glass tube occur after the hollow glass body or the glass tube ("intermediate product") is made, this definition supports the wording in the claims that states that "thermal processing" includes "thermally cutting to length" and "thermally opening the bottom".

Thus the claimed method of claim 42 is properly limited to providing the overpressure while the thermally cutting and thermally opening of steps b) and c) of claim 42 are performed. The aforesaid reasons based on citations of portions of the appellant's specification and the figures show that this latter limitation is supported by the originally filed disclosure.

The step b) of method claim 42 includes the further limitation that the result of thermally cutting the hollow glass tube to length produces a tube piece for discard and a bottom of the hollow glass tube clamped in the vertical orientation in step a). This further limitation corresponds to a further preferred embodiment of the method generally described on page 5 of appellant's specification and quoted herein above. It is supported by the disclosure on page 8, lines 8 to 10, which explains that two bottoms are formed by the "cutting through", namely an upper bottom on the clamped piece of the glass tube and a lower bottom (piece) which is to be discarded.

Step d) of claim 42 claims a preferred embodiment for producing the overpressure during thermal processing in the quoted method from page 5 of the

appellant's specification. The critical overpressure in the glass tube during thermal processing is provided by blowing gas during thermal processing into the hollow glass tube through its open upper end in the case of the alternative embodiments according to step d) of claim 42. Fig. 1 and the description on page 8 of appellant's specification associated with it support this embodiment. The last paragraph on page 5 of the appellant's US specification supports providing the overpressure by blowing a gas into the open upper end of the hollow glass tube (which is the end opposite to the end at which thermal processing takes place in the embodiment shown in appellant's fig. 1) during thermal processing. Page 8, line 16 to last line, and the embodiment of fig. 1, also support the limitation that the gas flow is conducted into the glass tube through its open upper end.

Especially note the last paragraph on page 4 and the paragraph between page 9, line 14, and page 10, line 2 of appellant's specification that support the last paragraph of claim 36, which states that the contamination of the inner surface by alkali is at least reduced by the claimed method of claim 42.

E. INDEPENDENT METHOD CLAIM 43

Independent method claims 43 and 32 differ only because the method of making the glass container of method claim 43 is further limited to a glass with the following specific composition: SiO_2, 75; B_2O_3, 10.5; Al_2O_3, 5; Na_2O, 7; CaO, 1.5; and BaO, << 1. Comparative quantitative measurements of the alkali release from the glass bottle made with this glass composition, when the method of claim 43 and when the corresponding prior art method that does not employ the

overpressure are performed, are described in the single paragraph between page 9, line 14, and page 10, line 2, of the appellant's originally filed specification.

The glass composition in step a) of claim 43 is of course supported by the disclosure in the single paragraph between line 14 of page 9 and line 2 of page 10 of appellant's specification.

Step b) of claim 43, which claims a method of making a small glass container, includes the following wording: "clamping a hollow glass tube with said open upper end and said inner surface in a vertical orientation". Figure 2 of appellant's specification, which partially illustrates the embodiment of the method claimed in claim 43, shows a glass tube 2 with an open upper end (partially closed by the stopper), clamped in a vertical position and thus supports the limitations of steps a) and b) of claim 43. Some additional support for these features is found in the appellant's specification at page 8, lines 6 to 7.

The limitations of steps a) and b) of claim 43 correspond to preferred embodiments of a more general method for making the glass bottle described on page 5, lines 2 to 10, of the appellant's specification, which are quoted herein below:

> "a method comprising the steps of:
> a) thermally cutting a glass tube to length;
> b) thermally opening a bottom formed on the glass tube during the cutting to length; and
> c) providing an overpressure in an interior of the glass tube.

In order to attain the desired effect the overpressure must be provided during the thermal processing, since the alkali compounds evaporate during the thermal processing or at the time of the thermal processing." [Underlining for emphasis has been added to the quotation]

The above-quoted method steps a) and b) recited on page 5 of the appellant's specification correspond to and support method steps c) to d) of appellant's method claim 43, which state that the glass tube clamped in the vertical orientation of steps a) and b) is thermally cut to length and that the bottom of the glass tube is thermally opened (by heating) during the claimed method of claim 43.

Furthermore the appellant's specification provides a definition of "thermal processing" at page 2, lines 20 to 23, that supports the limitation in the last several lines of step e) of claim 43 that the "thermal processing" includes both the "thermally cutting to length" of step c) of claim 43 and the "thermally opening" of step d) of claim 43. The appellant's specification on page 2 defines "thermally processing" as "after-working" (which of course must involve heating since the after-working is thermal) in order to process the "intermediate product", i.e. the hollow glass body or more particularly the glass tube, to make the "end product", i.e. the glass bottle. Since thermally "cutting to length" and "thermally opening" of the glass tube occur after the hollow glass body or the glass tube ("intermediate product") is made, this definition supports the wording in the claims that states that "thermal processing" includes "thermally cutting to length" and "thermally opening the bottom".

Thus the claimed method of claim 43 is properly limited to providing the overpressure while the thermally cutting and thermally opening of steps c) and d) of claim 43 are performed. The aforesaid reasons based on citations of portions of the

appellant's specification and the figures show that this latter limitation is supported by the originally filed disclosure.

The step c) of method claim 43 includes the further limitation that the result of thermally cutting the hollow glass tube to length produces a tube piece for discard and a bottom of the hollow glass tube clamped in the vertical orientation in step b). This further limitation corresponds to a further preferred embodiment of the method generally described on page 5 of appellant's specification and quoted herein above. It is supported by the disclosure on page 8, lines 8 to 10, which explains that two bottoms are formed by the "cutting through", namely an upper bottom on the clamped piece of the glass tube and a lower bottom (piece) which is to be discarded.

Step e) of claim 43 claims a preferred embodiment for producing the overpressure during thermal processing in the quoted method from page 5 of the appellant's specification. The critical overpressure in the glass tube during thermal processing is provided by a stopper with a through-going hole that partially closes the upper end of the glass tube in the case of the embodiments according to step e) of claim 43. Fig. 2 and the description associated with fig. 2 supports this embodiment. The last two paragraphs on page 6 and the first paragraph on page 9 of the appellant's specification support the use of the stopper with the through-going hole to provide the overpressure. Page 9, lines 1 to 13, of the appellant's specification also support the feature that the size of the hole in the stopper is selected so that the overpressure is not too high and damage to the softened glass tube is prevented, but is still sufficient to reduce alkali contamination.

Especially note the last paragraph on page 4 and the paragraph between page 9, line 14, and page 10, line 2 of appellant's specification that support the last paragraph of claim 43, which states that the contamination of the inner surface by alkali is at least reduced by the claimed method of claim 43.

The limitation of the alkali or alkali compounds to sodium borate according to step e) of claim 43 and in the last paragraph of claim 43 is partly due to the fact that sodium is the sole alkali metal in the glass composition of step a). The fact that alkali borates especially are released by glass containing an alkali metal oxide and boron oxide is supported by page 2, lines 9 to 12, of the appellant's specification. The method for reducing sodium borate contamination of a hollow glass body during thermal processing claimed in claim 43 is further supported by the comparative experimental results in the last paragraph on page 9 of the appellant's specification.

F. INDEPENDENT METHOD CLAIM 45

Independent method claims 45 and 36 differ from each other only because the method of making the glass container of method claim 45 is further limited to a glass with the following composition: SiO_2, 75; B_2O_3, 10.5; Al_2O_3, 5; Na_2O, 7; CaO, 1.5; and BaO, << 1. Comparative quantitative measurements of the alkali release from the glass bottle made with this glass composition, when the method of claim 45 and when the corresponding prior art method that does not employ the

overpressure are performed, are described in the single paragraph between page 9, line 14, and page 10, line 2, of the appellant's originally filed specification.

The glass composition in step a) of claim 45 is of course supported by the disclosure in the single paragraph between line 14 of page 9 and line 2 of page 10 of appellant's specification.

The method of making a small glass container covered by independent method claim 45 differs from the method covered by the above-described independent method claim 43 only in that the overpressure provided by the steps d) and e) of the respective claimed methods is provided in a different manner.

Step b) of claim 45, which claims a method of making a small glass container, includes the following wording: "clamping a hollow glass tube with said open upper end and said inner surface in a vertical orientation". Figure 1 of appellant's specification, which partially illustrates the embodiment of the method claimed in claim 45, shows a glass tube 2 with an open upper end clamped in a vertical position and thus supports the limitations of step b) of claim 45. Some additional support for these features of step b) of claim 45 is found in the appellant's specification at page 8, especially lines 6 to 7.

The limitations of steps a) and b) of claim 45 are part of a preferred embodiment of a general method of making the glass container, described on page 5, lines 2 to 10, of the appellant's specification, which are quoted herein below:

> "a method comprising the steps of:
> a) thermally cutting a glass tube to length;

b) thermally opening a bottom formed on the glass tube during the cutting to length; and

c) providing an overpressure in an interior of the glass tube.

In order to attain the desired effect the overpressure must be provided during the thermal processing, since the alkali compounds evaporate during the thermal processing or at the time of the thermal processing." [Underlining for emphasis has been added to the quotation]

The above-quoted method steps a) and b) recited on page 5 of the appellant's specification correspond to and support method steps c) and d) of appellant's method claim 45, which state that the glass tube (clamped in the vertical orientation of step a) is thermally cut to length and that the bottom of the glass tube is thermally opened (by heating) during the claimed method of claim 45.

Furthermore the appellant's specification provides a definition of "thermal processing" at page 2, lines 20 to 23, that supports the limitation in the last several lines of step e) of claim 45 that the "thermal processing" includes both the "thermally cutting to length" of step c) of claim 45 and the "thermally opening" of step d) of claim 45. The specification on page 2 defines "thermally processing" as "after-working" (which of course must involve heating since the after-working is thermal) in order to process the "intermediate product", i.e. the hollow glass body or more particularly the glass tube, to make the "end product", i.e. the glass bottle. Since thermally "cutting to length" and "thermally opening" of the glass tube occur after the hollow glass body or the glass tube ("intermediate product") is made, this definition supports the wording in the claims that states that "thermal processing" includes "thermally cutting to length" and "thermally opening the bottom".

Thus the claimed method of claim 45 is properly limited to providing the overpressure while the thermally cutting and thermally opening of steps c) and d) of claim 45 are performed. The aforesaid reasons based on citations of portions of the appellant's specification and the figures show that this latter limitation is supported by the originally filed disclosure.

The step c) of method claim 45 includes the further limitation that the result of thermally cutting the hollow glass tube to length produces a tube piece for discard and a bottom of the hollow glass tube clamped in the vertical orientation in step a). This further limitation corresponds to a further preferred embodiment of the method generally described on page 5 of appellant's specification and quoted herein above. It is supported by the disclosure on page 8, lines 8 to 10, which explains that two bottoms are formed by the "cutting through", namely an upper bottom on the clamped piece of the glass tube and a lower bottom (piece) which is to be discarded.

Step e) of claim 45 claims a preferred embodiment for producing the overpressure during thermal processing in the quoted method from page 5 of the appellant's specification. The critical overpressure in the glass tube during thermal processing is provided by blowing gas during thermal processing into the hollow glass tube through its open upper end in the case of the alternative embodiment according to step e) of claim 45. Fig. 1 and the description on page 8 of appellant's specification associated with it support this embodiment. The last paragraph on page 5 of the appellant's US specification supports providing the overpressure by blowing a gas into the open upper end of the hollow glass tube (which is the end

opposite to the end at which thermal processing takes place in the embodiment shown in appellant's fig. 1) during thermal processing. Page 8, line 16 to last line, and the embodiment of fig. 1, also support the limitation that the gas flow is conducted into the glass tube through its open upper end.

Especially note the last paragraph on page 4 and the paragraph between page 9, line 14, and page 10, line 2 of appellant's specification that support the last paragraph of claim 45, which states that the contamination of the inner surface by alkali (sodium borate) is at least reduced by the claimed method of claim 45.

The limitation of the alkali or alkali compounds to sodium borate according to step e) of claim 45 and in the last paragraph of claim 45 is partly due to the fact that sodium is the sole alkali metal in the glass composition of step a). The fact that alkali borates especially are released by glass containing an alkali metal oxide and boron oxide is supported by page 2, lines 9 to 12, of the appellant's specification. The method for reducing sodium borate contamination of a hollow glass body during thermal processing claimed in claim 45 is further supported by the comparative experimental results in the last paragraph on page 9 of the appellant's specification.

REMARKS

This paper provides a replacement section for the 'Summary of the Claimed Subject Matter' section of the appeal brief filed on October 24, 2008 in response to the 'Notification of Non-Compliant Appeal Brief' dated November 14, 2008.

The above replacement section for the 'Summary of the Claimed Subject Matter' section of the appeal brief filed on October 24, 2008 in the above-identified U.S. Patent Application has been prepared in accordance with the requirements for an amended brief under M.P.E.P. 1205.03. This section of the M.P.E.P. advises that when the appeal brief is defective solely due to failure to provide a summary section according to the requirements of 37 C.F.R. 41.37 (c), an entire amended brief should not be prepared and filed. Instead a paper (this paper) providing an amended summary section should be prepared. Accordingly the above-amended 'Summary of the Claimed Subject Matter' section in this paper replaces the 'Summary of the Claimed Subject Matter' section in the appeal brief filed on October 24, 2008.

A concise explanation of the subject matter defined in each independent claim on appeal has been provided separately in the above-amended 'Summary of the Claimed Subject Matter' section as required by the 'Notification'. Hence the deficiency in the appeal brief noted in the 'Notification' has been corrected.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected In formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549-4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,

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